

ABSTRACT OF THE DISCLOSURE

A sequential mesa type avalanche photodiode (APD) comprises a semiconductor substrate and a sequential mesa portion formed on the substrate. In the sequential mesa portion, a plurality of semiconductor layers, including a light absorbing layer and a multiplying layer, are laminated by epitaxial growth. In the plurality of semiconductor layers, a pair of semiconductor layers forming a pn junction is included.

5 The carrier density of a semiconductor layer which is near to the substrate among the pair of semiconductor layers is larger than the carrier density of a semiconductor layer which is far from the substrate among the pair of semiconductor layers. In the APD,

10 light-receiving current based on movement of electrons and positive holes generated in the sequential mesa portion when light is incident from the substrate toward the light absorbing layer is larger at a central portion than at a peripheral portion of the sequential mesa

15 portion.

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